

8. The apparatus as defined in claim 7, further comprising an opening provided on the housing, wherein a shaft is configured to pass through the opening, and the shaft is either attached to the first member or attached to an external member which couples to the first member.

9. The apparatus as defined in claim 8, wherein the first member is located closer to the opening than the second member.

10. The apparatus as defined in claim 8, wherein the second member comprises a guide hole along the axis.

11. The apparatus as defined in claim 8, wherein the apparatus comprises an electronic device comprising a cover and a body, the body receiving the housing, wherein the shaft couples to the cover and pivotally connects the cover to the body.

12. The apparatus as defined in claim 11, wherein the body of the electronic device further comprises a cavity to receive the housing.

13. The apparatus as defined in claim 8, wherein the apparatus comprises a modular hinge device.

14. The apparatus as defined in claim 7, wherein the second member comprises a slanted surface as a cam opposing the first member, the first member comprises a cam follower opposing the cam surface of the second member, wherein as the first member rotates about the axis, the cam follower moves around the axis while contacting the slanted cam surface, whereby the second member moves linearly back and forth along the axis.

15. The apparatus as defined in claim 14, wherein the first member further comprises a guide column at the axis extending toward the second member, the second member further comprises a guide hole receiving the guide column.

16. The apparatus as defined in claim 14, wherein the cam follower comprises at least one protrusion extending parallel to the axis toward the cam of the second member.

17. The apparatus as defined in claim 16, wherein the protrusion has a rounded distal end.

18. The apparatus as defined in claim 16, wherein the cam follower comprises two protrusions, the two protrusions being diagonally positioned about the axis.

19. The apparatus as defined in claim 18, wherein the slanted cam surface comprises a guide groove around the axis to guide movement of the protrusions.

20. The apparatus as defined in claim 16, wherein the cam follower comprises a square protrusion formed on a plane including the axis.

21. The apparatus as defined in claim 14, wherein the slanted surface of the second member is configured such that the second member makes two strokes along the axis as the first member rotates 360° about the axis.

22. The apparatus as defined in claim 21, wherein the slanted surface comprises two peaks and two valleys, wherein the two peaks are diagonally positioned with respect to each other about the axis, and the two valleys are diagonally positioned each other about the axis.

23. The apparatus as defined in claim 7, wherein the resilient member comprises a spring.

24. The apparatus as defined in claim 23, wherein the spring comprises a conical spring.

25. The apparatus as defined in claim 7, wherein the first member comprises a slanted surface as a cam opposing the second member, the second member comprises a cam follower opposing the cam surface of the first member, wherein as the first member rotates about the axis, the cam follower moves along the axis while contacting the slanted cam surface, whereby the second member moves linearly back and forth along the axis.

\* \* \* \* \*